No. 200400097

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Idaho Research Foundation, Inc., (representing the interests of the Idaho Agricultural Experiment Station and the University of Idaho)

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE ASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS M SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, NDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE , OR CONDITIONING IT PAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR T VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED HALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS A , 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'Jerome'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of Washington, D.C. this twenty-third day of July, in the year two thousand and four.*

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

y of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions*

Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER
Idaho Research Foundation, Inc. (representing the interests of the ~~Idaho Agricultural Experiment Station~~ Idaho Agricultural Experiment Station and the University of Idaho

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME
ID0566

3. VARIETY NAME
Jerome

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
PO Box 442337
University of Idaho
Moscow, ID 83844-2337
USA

5. TELEPHONE *(Include area code)*
(208) 885-7173

6. FAX *(Include area code)*
(208) 885-6654

FOR OFFICIAL USE ONLY

PVPO NUMBER
2004 00 097

FILING DATE
Feb. 4, 2004

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*
Land Grant University

8. IF INCORPORATED, GIVE STATE OF INCORPORATION

9. DATE OF INCORPORATION

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*
Richard C. Heimsch
Idaho Agricultural Experiment Station
PO Box 442337
Moscow, ID 83844-2337

FEES RECEIVED

FILING AND EXAMINATION FEES:
$ 3652.00
DATE 2/04/2004

CERTIFICATION FEE:
$ 432.00
DATE 6/03/2004

11. TELEPHONE *(Include area code)*
(208) 885-7173

12. FAX *(Include area code)*
(208) 885-6654

13. E-MAIL
agres@uidaho.edu

14. CROP KIND *(Common Name)*
Wheat

16. FAMILY NAME *(Botanical)*
Triticae

15. GENUS AND SPECIES NAME OF CROP
Triticum aestivum

17. IS THE VARIETY A FIRST GENERATION HYBRID?
☐ YES ☒ NO

18. DOES THE VARIETY CONTAIN ANY TRANSGENES? ***(OPTIONAL)***
☐ YES ☒ NO
IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERICALIZATION. _____

19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED
(Follow instructions on reverse)

a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of Variety
d. ☒ Exhibit D. Additional Description of the Variety *(Optional)*
e. ☒ Exhibit E. Statement of the Basis of the Owner's Ownership
f. ☒ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
g. ☒ Filing and Examination Fee ($3,652), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)*
☒ YES *(If "yes", answer items 21 and 22 below)* ☐ NO *(If "no", go to item 23)*

21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES?
☒ YES ☐ NO
IF YES, WHICH CLASSES? ☒ FOUNDATION ☒ REGISTERED ☒ CERTIFIED

22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☒ YES ☐ NO
IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS.
5 FOUNDATION 2 REGISTERED 2 CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.)

23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?
☐ YES ☒ NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
☐ YES ☒ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER
Richard C Heimsch

NAME *(Please print or type)*
Richard C. Heimsch

CAPACITY OR TITLE
Director, IAES

DATE
2/3/2004

SIGNATURE OF OWNER

NAME *(Please print or type)*

CAPACITY OR TITLE

DATE

(See reverse for instructions and information collection burden statement)

INSTRUCTIONS

2004 00 097

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to **reproduce** the variety, or for tuber reproduced varieties verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for $3,652 ($432 filing fee and $3,220 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice.)* Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of $432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office
Telephone: (301) 504-5518
FAX: (301) 504-5291
Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that name has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, 10301 Baltimore Avenue, Suite 401 NAL Building, Beltsville, MD 20705. Telephone: (301) 504-5682 http://www.ams.usda.gov/lsg/seed.htm.

ITEM

19a. Give:
(1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc.*

19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

20. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

23. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

24. *See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.*

22. CONTINUED FROM FRONT *(Please provide a statement as to the limitation and sequence of generations that may be certified.)*

23. CONTINUED FROM FRONT *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*

24. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

200400097

PVP Application No. 200400097: Jerome – Revision May 3, 2004

Exhibit A, Origin and Breeding History of the Variety

Jerome derived from the 1991 cross, A91197S, at Aberdeen, ID of 'Sunstar II' (PI 559378)/'Westbred 926'. Sunstar II is a hard red spring wheat released by Sunstar Plant Breeding, Twin Falls, ID and derived from a field cross of 'Westbred 906R' (PI 483455) to an unknown second parent. Westbred 926 is a hard red spring wheat, with a proprietary pedigree, developed by Western Plant Breeders, Bozeman, MT. A91197S was advanced in generations using the bulk method in the F_2 to F_4 generations using field plots grown at Aberdeen. In 1994, approximately 200 heads were harvested from short plants in the F_4 bulk population. In 1995, 67 $F_{4:5}$ headrows were planted at Aberdeen and selected for stripe rust resistance (causal organism *Puccinia striiformis* Westend) and short stature. One of those headrows, designated A91197S-9 was advanced to yield testing in 1996 and was evaluated in yield trials in southeastern Idaho for four years (1996 to 1999). In 2000, A91197S-9 was designated IDO566 and entered into the Tri-State Regional Spring Wheat Nursery. IDO566 was advanced to the Western Regional Spring Wheat Nursery in 2001 where it was evaluated for 3 years. In 2000, approximately 200 heads of IDO566 were selected at Aberdeen based on their similarity to the IDO566 plant type. These heads of IDO566 were planted at Aberdeen in 2001 and harvested to form the breeder seed for the cultivar Jerome. Jerome was evaluated in on farm testing by the University of Idaho cooperative extension service in 2002 and 2003 and by the Pacific Northwest Wheat Quality Council in 2003. Jerome is uniform for plant type, with no observed variants, and has remained stable during six generations of evaluation, 1996 to 2001.

3

PVP Application No. 200400097: Jerome - Revision May 3, 2004

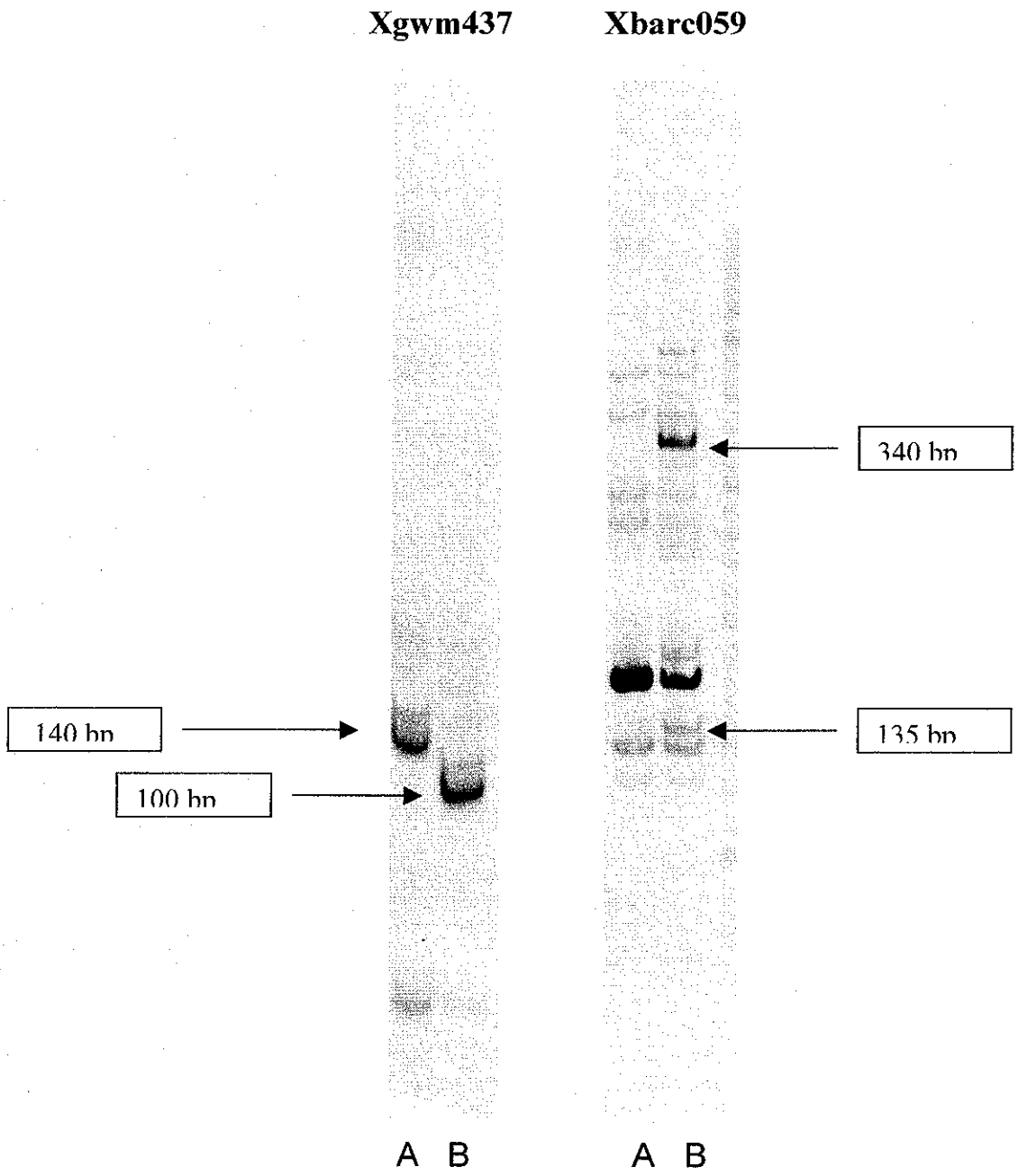
Exhibit B, Novelty Statement

Jerome is most similar in appearance to the cultivar Westbred 926. Jerome is distinguishable from Westbred 926 by the PCR amplification products obtained using the oligo-nucleotide primer pair BARC059 (annealing temp 55 C) and native PAGE electrophoresis. BARC059 is a microsatellite primer developed by the US Wheat and Barley Scab Initiative. Descriptions of the primer set and methods associated with BARC059 can be found at the Scab Initiative website (http://www.scabusa.org). Jerome has bands of approximately 135 bp and 340 bp that are absent in Westbred 926 (Figure 1). Jerome and Wesbred 926 also are distinguished by the amplification product obtained following amplification using the primer pair wms437 (annealing temp 50 C) followed by native PAGE (Roder et al., 1998). Jerome produces a product of approximately 100 bp, while Westbred 926 produces a product of approximately 140 bp (Figure 1).

Methods used for Figure 1. DNA was extracted using Plant DNAZol extraction buffer as described by the manufacturer (Life Technologies, Bethesda, MD). PCR reactions were conducted in a 30-uL volume in a MJ Research PC100 thermal cycler with an initial denaturation step of 2 min at 95 C followed by 35 cycles of 1 min at 95C, 1 min at 55C, 1 min at 72C. A terminal cycle of 1 min 95C, 1 min 55C, 5 min 72C was followed by storage at 4C. PCR reactions were conducted as described above, however the upstream (5') primer was labeled with IRDye 700 for detection in a LI-COR model 4200 sequencer (LI-COR Inc., Lincoln, NE). PCR reactions were denatured and electrophoresed as described by the manufacturer using a 6% acrylamide gel.

Roder M.S., Korzun V., Wendchake K., Plaschke J., Tixier M.-H., Leroy P., and Ganal M.W.. 1998. A microsatellite map of wheat. Genetics 149:2007-2023.

PVP Application No. 200400097 Exhibit B, Continued - Revision May 3, 2004



Native PAGE electrophoresis of amplification products of A) Westbred 926 and B) Jerome using primer pairs for Xgwm437 and Xbarc059.

REPRODUCE LOCALLY. Include form number and date on all reproductions.

Form Approved - OMB No. 0581-005

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT C
(*Wheat*)

OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (*Triticum* spp.)

NAME OF APPLICANT(S)
Idaho Agricultural Experiment Station

ADDRESS (*Street and No. or RD No., City, State, and Zip Code*)
PO Box 442337
Moscow, ID 83844-2337

FOR OFFICIAL USE ONLY

PVPO NUMBER 2004 00 097

VARIETY NAME

TEMPORARY OR EXPERIMENTAL DESIGNATION

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g. [0][9][9] or [0][9]) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used:
Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

[1] 1=Common 2=Durum 3=Club 4=Other (SPECIFY) : _____

2. VERNALIZATION:

[1] 1=Spring 2=Winter 3=Other (SPECIFY) : _____

3. COLEOPTILE ANTHOCYANIN:

[1] 1=Absent 2=Present

4. JUVENILE PLANT GROWTH:

[3] 1=Prostrate 2=Semi-erect 3=Erect

5. PLANT COLOR (boot stage):

[3] 1 = Yellow-Green 2 = Green 3 = Blue-Green

6. FLAG LEAF (boot stage):

[2] 1 = Erect 2 = Recurved [2] 1 = Not Twisted 2 = Twisted

7. EAR EMERGENCE:

[0][2] Number of Days Earlier Than Westbred 936 *

[0][3] Number of Days Later Than Klasic *

6

8. ANTHER COLOR:

[1] 1 = Yellow 2 = Purple

9. PLANT HEIGHT (from soil to top of head, excluding awns):

[0][5] cm Taller Than Westbred 936 *

[0][3] cm Shorter Than Jefferson *

* Relative to a PVPO-Approved Commercial Variety Grown in the Same Trial

10. STEM:

A. ANTHOCYANIN

[1] 1= Absent 2=Present

B. WAXY BLOOM

[1] 1=Absent 2=Present

C. HAIRINESS (last internode of rachis)

[1] 1=Absent 2=Present

D. INTERNODE (SPECIFY NUMBER)

[1] 1= Hollow 2=Semi-solid 3=Solid

E. PEDUNCLE

[2] 1=Absent 2=Present

[17] cm Length

11. HEAD (at Maturity):

A. DENSITY

[2] 1=Lax 2=Middense 3= Dense

B. SHAPE

[2] 1 = Tapering 2= Strap 3 = Clavate 4 = Other (SPECIFY): _____

C. CURVATURE

[1] 1 = Erect 2 = Inclined 3 = Recurved

D. AWNEDNESS

[4] 1 = Awnless 2 = Apically Awnletted 3 = Awnletted 4 = Awned

12. GLUMES (at Maturity):

A. COLOR

[1] 1 = White 2 = Tan 3 = Other (SPECIFY) : _____

B. SHOULDER

[5] 1 = Wanting 2 = Oblique 3 = Rounded 4 = Square 5 = Elevated 6 = Apiculate

C. BEAK

[3] 1 = Obtuse 2 = Acute 3 =Acuminate

D. LENGTH

[3] 1 = Short (ca. 7mm) 2 = Medium (ca. 8mm) 3 = Long (ca. 9mm)

12. GLUMES (at Maturity) *Continued*:

2004 00 097

E. WIDTH

[2] 1 = Narrow (ca. 3mm) 2 = Medium (ca. 3.5mm) 3 = Wide (ca. 4mm)

13. SEED:

A. SHAPE

[1] 1 = Ovate 2 = Oval 3 = Elliptical

B. CHEEK

[1] 1=Rounded 2=Angular

C. BRUSH

[2] 1=Short 2=Medium 3=Long

[1] 1 = Not Collared 2 = Collared

D. CREASE

[3] 1 = Width 60% or less of Kernel
2 = Width 80% or less of Kernel
3 = Width Nearly as Wide as Kernel

[1] 1 = Depth 20% or less of Kernel
2 = Depth 35% or less of Kernel
3 = Depth 50% or less of Kernel

E. Color

[3] 1=White 2= Amber 3= Red
4= OTHER (Specify)

G. PHENOL REACTION *(see instructions)*:

[4] 1 = Ivory 2 = Fawn
3 = Light Brown 4 = Dark Brown
5 = Black

F. TEXTURE

[4] 1=Hard 2=Soft

14. DISEASE: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

[0]	Stem Rust *(Puccinia graminis* f. sp. *tritici)*	[2]	Leaf Rust *(Puccinia recondita* f. sp. *tritici)*
[2]	Stripe Rust *(Puccinia striiformis)*	[2]	Loose Smut *(Ustilago tritici)*
[0]	Tan Spot *(Pyrenophora tritici-repentis)*	[0]	Flag Smut *(Urocystis agropyri)*
[0]	Halo Spot *(Selenophoma donacis)*	[0]	Common Bunt *(Tilletia tritici* or *T. laevis)*
[0]	*Septoria nodorum* (Glume Blotch)	[1]	Dwarf Bunt *(Tilletia controversa)*
[0]	*Septoria avenae* (Speckled Leaf Disease)	[0]	Karnal Bunt *(Tilletia indica)*
[0]	*Septoria tritici* (Speckled Leaf Blotch)	[2]	Powdery Mildew *(Erysiphe graminis* f. sp. *tritici)*
[1]	Scab (*Fusarium* spp.)	[0]	"Snow Molds"

9

14. Disease *(Continued)* (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

[2]	"Black Point" (Kernel Smudge)	[0]	Common Root Rot *(Fusarium, Cochliobolus* and *Bipolaris* spp.*)*
[1]	Barley Yellow Dwarf Virus (BYDV)	[0]	Rhizoctonia Root Rot *(Rhizoctonia solani)*
[0]	Soilborne Mosaic Virus (SBMV)	[0]	Black Chaff *(Xanthomonas campestris* pv. *translucens)*
[0]	Wheat Yellow (Spindle Streak) Mosaic Virus	[0]	Bacterial Leaf Blight *(Pseudomonas syringae* pv. *syringae)*
[0]	Wheat Streak Mosaic Virus (WSMV)	[ ]	Other (SPECIFY)
[ ]	Other (SPECIFY)	[ ]	Other (SPECIFY)
[ ]	Other (SPECIFY)	[ ]	Other (SPECIFY)
[ ]	Other (SPECIFY)	[ ]	Other (SPECIFY)

15. INSECT: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

[2]	Hessian Fly *(Mayetiola destructor)*	[ ]	Other (SPECIFY)
[1]	Stem Sawfly *(Cephus* spp.)	[ ]	Other (SPECIFY)
[1]	Cereal Leaf Beetle *(Oulema melanopa)*	[ ]	Other (SPECIFY)
[1]	Russian Aphid *(Diuraphis noxia*	[ ]	Other (SPECIFY)
[1]	Greenbug *(Schizaphis graminum)*	[ ]	Other (SPECIFY)
[0]	Aphids	[ ]	Other (SPECIFY)

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS

Plant Variety Protection Application: Jerome

Exhibit D, Additional Description of Variety

Jerome has an unpigmented coleoptile and an erect seedling growth habit. Jerome has a semi-dwarf plant type, with an average plant stature in Idaho field trials (42 trials) of 82 cm compared with 77 cm for 'Westbred 936' (PI 587200) and 85 cm for the tall semi-dwarf cultivar 'Jefferson' (PI 603040). Jerome has dark green foliage with recurved and twisted flag leaves. The inflorescence of Jerome is awned, mid-dense, strap shaped, with glumes that are mid-wide, long, with elevated shoulders and acuminate beaks. The auricles and anthers of Jerome are unpigmented. Jerome has a waxy bloom on its glumes at flowering and a bright white chaff color at maturity. Seed of Jerome is red, ovate, with a shallow, wide crease and rounded cheeks, similar to Sunstar II. The brush on Jerome's seed is medium in length and not collared. Jerome has large seed, averaging 41 mg per kernel, greater than Jefferson hard red spring wheat (36 mg per kernel), but not significantly different from Westbred 926 (42 mg per kernel). Jerome carries the high molecular weight glutenin alleles *Glu-A1b* (2*), *Glu-B1i* (17+18), and *Glu-D1d* (5+10).

10

Plant Variety Protection Application: Jerome

Exhibit D, Additional Description of Variety (*Continued*).

Quantitative Data

Table 1. Irrigated Trials, Lower Valley, University of Idaho Trials, Aberdeen Breeding Program, 1998 to 2003.

Table 2. Rain-fed trials (Tetonia, Rockland, Ririe) and irrigated trials at Tetonia, 1998 to 2003.

Table 3. Northern Idaho Yield Testing, 2001-3.

Table 4. WSU 2000 Tri-State Nursery, Pullman and Royal Slope.

Table 5. Irrigated Trials, Southern Idaho Extension Trials, District II, III, and IV, 2002-2003.

Table 6. Irrigated Trials, Southern Idaho Extension Trials, District III, and IV, 2002-2003.

Table 7. 2003 Washington State Univ. Hard Red Spring Wheat Extension Variety Trials.

Table 8. All University of Idaho Trials: Aberdeen Breeding Program, Moscow Breeding Program, and Cooperative Extension Trials, 1998 to 2003.

Table 9. Western Regional Hard Spring Nursery Yield Summary, 2001 & 2002.

Table 10. Milling and baking quality of hard red spring wheats in UI Wheat Breeding trials, 2000-2002.

Table 11. Milling and baking quality of hard red spring wheats in UI Wheat Breeding trials, 1998-2002.

Table 12. Milling and baking performance of Jerome in the Western Regional Nursery, 2001 and 2002.

Table 1. Irrigated Trials, Lower Valley, University of Idaho Trials, Aberdeen Breeding Program, 1998 to 2003.

	Heading date	Height	Lodging	Yield	Test weight	Tare (AB)
	Julian	in	1 - 9	bu/a	lb/bu	
Jerome	**167**	**34.6**	**1.6**	**115**	**60.3**	**0.036**
Jefferson	169	35.9	2.7	109	60.9	0.031
WPB936	169	32.6	1.7	110	59.1	0.036
Idaho 377s (HWS)	170	36.2	3.7	112	61.0	0.064
IDO545	170	40.1	3.1	100	60.0	0.039
Iona	169	38.0	3.8	108	61.1	0.050
Scarlet	170	38.4	4.0	110	59.8	0.032
Trials	8	16	13	16	16	4
Contrast t-value						
Jerome vs Jefferson	10.2**	8.3**	6.9**	ns	5.0 *	ns
Jerome vs WPB936	ns	17.8**	ns	ns	17.8**	ns

Table 2. Rain-fed trials (Tetonia, Rockland, Ririe) and irrigated trials at Tetonia, 1998 to 2003.

		Tetonia irrigated trials			Rain-fed trials		
	Heading date	Height	Yield	Test weight	Height	Yield	Test weight
	Jan 1+	in	bu/a	lb/bu	in	bu/a	lb/bu
Jerome	**191**	**31.5**	**62.1**	**59.2**	**23.9**	**35.6**	**59.6**
Jefferson	195	33.1	59.5	59.8	23.6	36.2	60.1
WPB936	192	29.2	60.4	58.9	22.7	36.8	59.3
Idaho 377s (HWS)	195	33.2	65.6	59.7	25.0	37.4	60.0
IDO545	194	37.1	53.4	59.1	27.4	37.8	59.4
Iona	194	33.5	58.5	59.8	24.4	33.5	59.7
Scarlet	194	34.4	52.3	58.6	26.2	37.0	59.5
Trials	4	4	5	5	5	9	7
Contrast F							
Jerome vs Jefferson	20.8**	ns	ns	ns	ns	ns	ns
Jerome vs WPB936	ns	8.4**	ns	ns	ns	ns	ns

Table 3. Northern Idaho Yield Testing, 2001-3.
(Stephen Guy and Bob Zemetra)

	Heading date	Height	Yield	Test weight	Grain protein
	Julian	in	bu/a	lb/bu	%
Jerome	**181**	**29.2**	**61.3**	**58.9**	**14.3**
IDO545	184	35.0	58.5	58.3	15.5
Jefferson	182	29.9	60.9	59.3	15.1
Scarlet	183	31.0	55.9	58.4	15.4
WPB936	181	26.7	53.9	57.6	15.2
Trials	3	5	6	6	3
LSD	0.9	1.0	4.0	0.8	1.1

Table 4. WSU 2000 Tri-State Nursery, Pullman and Royal Slope.

	Heading date	Height	Yield	Test weight	Grain protein
	Julian	in	bu/a	lb/bu	%
Jerome	**160**	**33.5**	**114**	**62.4**	**12.4**
IDO545	162	40.0	114	62.9	13.9
Jefferson	161	33.5	116	62.9	12.9
Scarlet	161	37.5	117	62.3	13.1
WPB926	160	33.0	94	62.2	13.6
Stderr	0	1.0	3	0.4	0.3

Table 5. Irrigated Trials, Southern Idaho Extension Trials, District II, III, and IV, 2002-2003.

	Heading date	Height	Lodging	Yield	Test weight
	Julian	in	%	bu/a	lb/bu
Jerome	**162**	**35.0**	**32**	**110**	**62.7**
Jefferson	164	36.0	41	100	62.9
Westbred 936	163	33.0	29	103	62.5
Trials	7	11	8	11	11
Standard error	0.3	0.3	9	1.5	0.3

Table 6. Irrigated Trials, Southern Idaho Extension Trials, District III, and IV, 2002-2003.

	Heading date	Height	Lodging	Yield	Test weight
	Julian	in	%	bu/a	lb/bu
Jerome	**167**	**34**	**50**	**106**	**60.9**
Iona	169	40	75	94	61.6
Jefferson	169	36	50	97	61.6
Rick	169	37	60	97	60.9
Saxon	169	37	50	99	61.1
Scarlet	170	36	65	94	61.6
Tara	167	36	60	94	61.5
Westbred 936	168	32	75	100	61.6
Zeke	167	35	65	96	60.4
Trials	5	5	2	6	6
Standard error	0.4	1	10	2.9	0.3

Table 7. 2003 Washington State Univ. Hard Red Spring Wheat Extension Variety Trials.

YIELD (BU/A)

VARIETY NAME	ST. ANDREWS	CONNELL	RITZVILLE	HORSE HEAVEN	BICKLETON	LIND DRY	LAMONT	FAIRFIELD	MAYVIEW	DAYTON	WALLA WALLA	ALMIRA	DUSTY	REARDAN	ST. JOHN	FARMINGTON	PULLMAN	YIELD MEAN (BU/A)	TEST WT MEAN (LBS/BU)	PROTEIN MEAN (%)
JEROME	**18.2**	**23.9**	**28.3**	**25.6**	**27.1**	**32.2**	**34.2**	**43.3**	**42.6**	**43.9**	**42.2**	**47.5**	**47.3**	**53.5**	**50.6**	**60.8**	**70.1**	**40.7**	**58.5**	**13.4**
AGRIPRO 96-0060	19.1	21.9	23.9	26.1	25.8	30.5	31.4	35.7	43.6	39.3	35.2	42.4	35.3	45.0	48.2	51.6	64.1	36.4	57.1	13.4
HANK	18.8	22.9	26.5	26.2	30.8	30.6	33.4	38.0	39.7	43.7	49.0	46.4	52.7	52.6	54.1	63.7	71.2	41.2	57.6	14.4
HOLLIS	21.7	23.0	23.3	26.3	26.2	30.1	31.7	41.4	38.1	43.0	41.8	44.0	46.9	46.3	52.0	58.3	60.8	38.5	57.9	14.9
ID545	15.2	21.1	21.6	22.9	21.9	27.0	31.2	35.8	39.0	41.7	39.5	43.6	40.3	45.5	43.1	57.3	67.0	36.1	57.5	14.7
JEFFERSON	19.4	23.7	28.1	27.2	28.3	30.1	35.3	41.7	42.1	43.0	43.8	46.6	45.6	51.7	54.5	59.8	68.1	40.5	58.4	14.6
SCARLET	18.1	24.2	24.4	27.3	28.8	32.2	36.6	48.4	48.4	47.6	44.9	47.6	48.5	51.9	54.9	61.4	67.7	41.9	57.4	13.9
TARA 2002	14.5	22.0	24.5	25.6	28.0	25.7	29.9	44.4	40.1	42.2	42.9	45.0	52.7	48.2	52.6	60.8	66.3	39.1	58.4	14.6
WA7923	20.5	26.7	25.5	26.9	24.8	31.4	33.0	42.9	43.1	42.7	42.7	40.5	47.9	45.0	50.7	57.1	68.1	39.4	58.3	14.1
WA7925	20.2	26.2	28.2	25.9	30.4	30.3	33.5	42.8	46.4	42.6	46.3	41.4	51.6	50.7	50.8	60.1	71.4	41.1	59.2	13.8
WANSER/*5VRN2	10.3	23.2	23.2	22.8	20.0	25.1	25.3	35.7	39.9	35.9	37.4	39.6	30.8	42.7	37.2	51.8	58.9	32.9	57.7	15.0
WESTBRED 926	18.2	21.0	25.3	24.6	28.1	27.2	28.0	46.4	37.7	40.9	44.1	44.6	51.3	48.5	49.5	62.4	61.3	38.8	57.9	14.8
NURSERY MEAN	17.8	23.3	25.2	25.6	26.7	29.4	32.0	41.4	41.7	42.2	42.5	44.1	45.9	48.5	49.8	58.7	66.3	38.9	58.0	14.3
CV %	24.7	7.8	4.6	4.7	12.3	5.1	6.9	5.9	8.9	5.6	12.7	8.8	7.3	4.1	8.0	4.9	5.8	8.1	1.6	4.1
LSD @ .10	6.2	2.5	1.6	1.7	4.6	2.1	3.1	3.4	5.2	3.3	7.5	5.5	4.7	2.8	5.6	4.0	5.4	1.0	0.3	0.2

Table 8. All University of Idaho Trials: Aberdeen Breeding Program, Moscow Breeding Program, and Cooperative Extension Trials, 1998 to 2003.

	Heading date	Height	Lodging	Yield	Test weight
	Jan 1+	in	%	bu/a	lb/bu
Jerome	**172**	**32.2**	**17**	**85.4**	**60.4**
Jefferson	174	33.3	29	81.3	60.9
WPB936	173	30.2	16	81.5	59.7
Trials	22	42	21	48	46
Contrast t-value					
Jerome vs Jefferson	39.0**	17.6**	4.9*	10.2**	6.5*
Jerome vs WPB936	6.6*	64.5**	ns	9.0**	12.9**

Table 9. Western Regional Hard Spring Nursery Yield Summary, 2001 & 2002.

	Yield (bu/a)				
Cultivar	Mean yield < 50 bu/a	Mean yield 50 - 75 bu/a	Mean yield 75 - 90 bu/a	Mean yield > 90	All Sites
Jerome	**46.3**	**69.5**	**85.4**	**127.5**	**74.9**
IDO545	41.0	70.3	77.0	104.5	69.5
Westbred 926	46.5	70.6	79.4	112.9	72.3
IDO377S (HWS)	50.8	73.8	86.0	131.8	78.2
Klasic (HWS)	35.3	61.3	77.8	112.8	65.6
LSD	13.1	5.8	13.5	11.6	5.0
Environments	4	8	5	2	19

Table 10. Milling and baking quality of hard red spring wheats in UI Wheat Breeding trials, 2000-2002.

	Flour		Mixograph				Bread bake						Visual evaluation				
Cultivar	Protein	Yield	Peak time	Height	Tol.	Abs.	Mix time	Dough type	Abs.	Proof ht	Loaf volume	Vol/Prot.	Ext.	Int.	WSB	Coarse	Flaws
	---%---		min	cm	deg.	%	min	1-5	%	cm	cc	cc/%	1-5	1-5	0-1	0-1.5	no.
Jerome	**12.2**	**68.2**	**2.9**	**7.0**	**71.3**	**58.8**	**2.5**	**4.4**	**58.8**	**8.1**	**1122**	**92.1**	**1.3**	**1.5**	**0.6**	**0.9**	**1.4**
Westbred 926	12.9	66.2	3.3	7.0	73.2	59.4	2.7	4.4	59.4	8.0	1133	88.4	1.4	1.4	0.6	0.9	1.3
Contrast F																	
Jerome vs Westbred 926	8.17*	13.22**	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

ns - non-significant F-test for comparison of cultivars
* - F-test for cultivars significant at the 5% probability.
** - F-test for cultivars significant at the 1% probability.

Table 11. Milling and baking quality of hard red spring wheats in UI Wheat Breeding trials, 1998-2002.

	Flour		Mixograph				Bread bake						Visual evaluation				
Cultivar	Protein	Yield	Peak time	Height	Tol.	Abs.	Mix time	Dough type	Abs.	Proof ht	Loaf volume	Vol/Prot.	Ext.	Int.	WSB	Coarse	Flaws
	---%---		min	cm	deg.	%	min	1-5	%	cm	cc	cc/%	1-5	1-5	0-1	0-1.5	no.
Jerome	**11.9**	**67.8**	**2.8**	**6.9**	**72.3**	**58.7**	**2.5**	**4.2**	**58.9**	**8.2**	**1109**	**92.7**	**1.6**	**1.4**	**0.3**	**0.8**	**1.3**
IDO545	12.7	67.3	3.0	7.0	71.9	60.4	2.5	4.4	60.6	8.3	1104	86.7	1.7	1.4	0.4	0.8	1.3
Iona	12.5	68.4	3.3	6.9	70.3	60.2	2.8	4.7	60.3	8.6	1181	93.1	1.7	1.5	0.4	0.8	1.2
Jefferson	12.2	68.0	3.7	6.8	74.7	59.4	3.1	4.3	59.5	8.3	1112	91.0	1.8	1.6	0.4	0.4	0.9
Scarlett	12.1	66.8	2.7	6.9	69.5	59.1	2.3	4.3	59.1	8.3	1077	88.5	1.6	1.6	0.3	0.5	0.9
WPB936	13.1	65.7	3.2	7.2	70.5	61.2	2.7	5.0	61.3	8.3	1158	88.4	1.7	1.5	0.6	0.8	1.5
StdErr	0.1	0.2	0.1	0.1	1.0	0.3	0.1	0.1	0.3	0.1	14	1.0	0.1	0.1	0.1	0.1	0.1
Bakes	21	21	21	21	21	20	20	20	20	19.0	20	21.0	20	20	20.0	20.0	20.0
F (Cult)	14.3	17.7	28.6	4.2	3.4	8.8	24.8	5.1	9.1	3.0	7.8	6.9	0.7	1.8	2.0	6.5	3.8
MSE (Cult)	4.1	19.6	2.8	0.5	73.0	17.4	1.7	2.1	17.7	0.26	29304	133.0	0.2	0.2	0.3	0.7	1.1
Contrast F																	
Jerome vs Jefferson	2.76	0.54	79.3***	1.4	2.8	2.5	62.4***	0.55	1.9	0.7	0.02	1.5	2.9	4.9*	0.7	16.1***	6.0*
Jerome vs WPB936	51.3***	41.2***	19.8***	8.5**	1.6	31.5***	9.8**	17.6***	29.7***	0.8	6.3*	9.5**	0.5	2.2	6.0*	0	0.8

ns - non-significant F-test for comparison of cultivars
* - F-test for cultivars significant at the 5% probability.
** - F-test for cultivars significant at the 1% probability.

Table 12. Milling and baking performance of Jerome in the Western Regional Nursery, 2001 and 2002.
Evaluation by the Western Wheat Quality Laboratory, Pullman WA.

VARIETY	CLASS	Test weight #/bu	Udy hardness	Single kernel hardness	Kernel weight mg	Kernel diameter mm	Grain protein %	Flour yield %	Break flour %
Klasic	HWS	62.2	50	51	36.2	2.4	14.1	65.7	42.0
Idaho 377s	HWS	62.5	72	67	32.9	2.3	14.3	63.4	37.3
Westbred 926	HRS	61.9	64	55	41.0	2.7	15.4	65.2	37.2
Jerome	HRS	62.1	72	62	36.4	2.5	14.1	66.5	39.8

VARIETY	FASH	Milling score	Flour protein %	RVA units	Mix type	Bake absorp. %	Mix time min	Loaf vol. ml	Bread crumb
Klasic	0.38	81.5	12.6	214	6H	66.2	5.4	1038	3
Idaho 377s	0.41	77.4	12.5	226	6M	66.1	3.8	900	4
Westbred 926	0.41	79.1	13.4	181	5M	68.2	3.6	1023	4
Jerome	0.41	80.4	12.5	160	6M	65.2	4.3	1013	3

IDAHO AGRICULURAL EXPERIMENT STATION
Moscow, Idaho

Announces the release of

JEROME
Hard red spring wheat

'Jerome' (Reg. No. CV XXX, PI 632712, NSSL No. 423391) is a hard red spring wheat (*Triticum aestivum* L.) developed by the Idaho Agricultural Experiment Station and released in 2004. Jerome was released for its superior grain yield and baking quality in the intermountain zone of the western United States. Jerome well adapted to both irrigated and rain-fed production systems.

Jerome derived from the 1991 cross, A91197S, at Aberdeen, ID of 'Sunstar II' (PI 559378)/'Westbred 926'. Sunstar II is a hard red spring wheat released by Sunstar Plant Breeding, Twin Falls, ID and derived from a field cross of 'Westbred 906R' (PI 483455) to an unknown second parent. Westbred 926 is a hard red spring wheat, with a proprietary pedigree, developed by Western Plant Breeders, Bozeman, MT. A91197S was advanced in generations using the bulk method in the F_2 to F_4 generations using field plots grown at Aberdeen. In 1994, approximately 200 heads were harvested from short plants in the F_4 bulk population. In 1995, 67 $F_{4:5}$ headrows were planted at Aberdeen and selected for stripe rust resistance (causal organism *Puccinia striiformis* Westend) and short stature. One of those headrows, designated A91197S-9 was advanced to yield testing in 1996 and was evaluated in yield trials in southeastern Idaho for four years (1996 to 1999). In 2000, A91197S-9 was designated IDO566 and entered into the Tri-State Regional Spring Wheat Nursery. IDO566 was advanced to the Western Regional

20

Spring Wheat Nursery in 2001 where it was evaluated for 3 years. In 2000, approximately 200 heads of IDO566 were selected at Aberdeen based on their similarity to the IDO566 plant type. These heads of IDO566 were planted at Aberdeen in 2001 and harvested to form the breeder seed for the cultivar Jerome. Jerome was evaluated in on farm testing by the University of Idaho cooperative extension service in 2002 and 2003 and by the Pacific Northwest Wheat Quality Council in 2003. Jerome is uniform for plant type without obvious phenotypic variants and has remained stable during six generations of evaluation, 1996 to 2001.

Jerome is most similar in appearance to the cultivar Westbred 926. Jerome is distinguishable from Westbred 926 by the PCR amplification products obtained using the oligo-nucleotide primer pair BARC059 (annealing temp 55 C) and native PAGE electrophoresis. Jerome has bands of approximately 135 bp and 340 bp that are absent in Westbred 926. Jerome and Wesbred 926 also are distinguished by the amplification product obtained following amplification using the primer pair wms437 (annealing temp 50 C) followed by native PAGE. Jerome produces a product of approximately 100 bp, while Westbred 926 produces a product of approximately 140 bp. Jerome has an unpigmented coleoptile and an erect seedling growth habit. Jerome has a semi-dwarf plant type, with an average plant stature in Idaho field trials (42 trials) of 82 cm compared with 77 cm for 'Westbred 936' (PI 587200) and 85 cm for the tall semi-dwarf cultivar 'Jefferson' (PI 603040). Jerome has dark green foliage with recurved and twisted flag leaves. The inflorescence of Jerome is awned, mid-dense, strap shaped, with glumes that are mid-wide, long, with elevated shoulders and acuminate beaks. The auricles and anthers of Jerome are unpigmented. Jerome has a waxy bloom on its glumes

at flowering and a bright white chaff color at maturity. Seed of Jerome is red, ovate, with a shallow, wide crease and rounded cheeks, similar to Sunstar II. The brush on Jerome's seed is medium in length and not collared. Jerome has large seed, averaging 41 mg per kernel, greater than Jefferson hard red spring wheat (36 mg per kernel), but not significantly different from Westbred 926 (42 mg per kernel). Jerome carries the high molecular weight glutenin alleles *Glu-A1b* (2*), *Glu-B1i* (17+18), and *Glu-D1d* (5+10).

Jerome is an early maturing spring wheat, with an average heading date in Idaho of 172 days after January 1 in 22 field observations from 1998 to 2003. By comparison, Jefferson headed 2 days later ($p<0.01$) and Westbred 936 headed 1 day later ($p<0.05$) than Jerome. Jerome has excellent lodging resistance, similar to Westbred 936. In 21 Idaho yield trials, where lodging occurred, Jerome, Westbred 936, and Jefferson respectively had 17%, 16%, and 29% of plants lodged in a plot (Jerome and Jefferson different at $p<0.01$). In 48 yield trials grown across Idaho from 1998 to 2003, Jerome had an average grain yield 5740 kg ha^{-1}, greater than Jefferson (5460 kg ha^{-1}, $p<0.01$) and Westbred 936 (5477 kg ha^{-1}, $p<0.01$). In the same yield trials, Jerome had an average grain volume-weight of 778 kg m^{-3}, greater than Westbred 936 (769 kg m^{-3}, $p<0.01$), yet less than Jefferson (784 kg m^{-3}, $p<0.05$).

Jerome has resistance to stripe rust comparable to Jefferson. In four years of trials (2000 to 2003) at Pullman and Mount Vernon, WA, stripe rust-caused lesions did not occur on Jerome or Jefferson while the susceptible check cultivar 'Lemhi 66' had an average percent of leaf area covered in lesions that exceeded 50%. Jerome is resistant to Pacific Northwestern US populations of the Hessian fly (*Mayetiola destructor* Say) based

22

on replicated laboratory evaluations of Jerome using Hessian fly populations collected near Lewiston, Idaho. In a replicated field trial at Genesee, ID in 2002, Jerome had 0.0 % infested plants, similar to the resistant hard red spring cultivar 'Hank' (PI 613585). Both cultivars had less infestation than the susceptible genotype Westbred 936 with 53.5 % infested plants (1.4 puparia per tiller) and Lolo (PI 614840) with 96.7% infested plants (9.3 puparia per tiller, comparisons significant, $p<0.05$). Both Hank and Jerome derive their Hessian fly resistance from Westbred 926.

The milling and baking quality of Jerome is similar to Westbred 926, differing primarily in flour extraction. In 4 trials in southern Idaho from 2000 to 2002 evaluated using a Quadrumat Senior experimental flour mill[1], Jerome had a flour extraction of 682 g kg^{-1} compared with 662 g kg^{-1} for Westbred 926 ($p<0.01$ for comparison). In a comparison using 21 trials from 1998 to 2002, Jerome had a milling yield of 678 g kg^{-1} on the Quadrumat Senior mill, similar to Jefferson (680 g kg^{-1}) and greater than Westbred 936 (657 g kg^{-1}, $p<0.01$). Dough mixing time for Jerome, as measured by mixograph in 20 bake evaluations, is moderate (2.5 min) compared with the long mix-time genotypes Westbred 936 and Jefferson (2.7 min and 3.2 min, respectively, $p<0.01$). Loaf volumes of Jerome, Jefferson, and Westbred 936 are similar when adjusted to similar flour protein concentrations. In 20 bread bakes from grain grown in southern Idaho field trials from 1998 to 2002, Jerome had an average pup loaf volume of 1109 ml (average flour protein concentration 119 g kg^{-1}), Jefferson a volume of 1112 ml (average flour protein concentration 12.2 g kg^{-1}), and Westbred 936 a volume of 1158 ml (average flour protein concentration 13.1 g kg^{-1}).

[1] All milling and baking evaluations presented in registration note conducted at the University of Idaho Wheat Quality Laboratory at Aberdeen, supervised by Katherine O'Brien.

Seed of Jerome will be maintained by the University of Idaho, Foundation Seed Program and may be obtained by contacting the Foundation Seed Manager, University of Idaho, Kimberly, Idaho. Plant Variety Protection has been applied for with the recognized classes of foundation, registered, and certified seed.

_____ _____

Director, Idaho Agricultural Experiment Station Date
Moscow, Idaho

REPRODUCE LOCALLY. Include form number and edition date on all reproductions. FORM APPROVED - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued *(7 U.S.C. 2421)*. The information is held confidential until the certificate is issued *(7 U.S.C. 2426)*.

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Idaho Agricultural Experiment Station	IDA0566	Jerome

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	5. TELEPHONE *(Include area code)*	6. FAX *(Include area code)*
PO Box 442337 University of Idaho Moscow, ID 83844-2337 USA	(208) 885-7173	(208) 885-6654

7. PVPO NUMBER 2004 00 097

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. **If no, please explain.** [X] **YES** [ ] **NO**

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? **If no, give name of country.** [ ] **YES** [ ] **NO**

10. Is the applicant the original owner? [X] **YES** [ ] **NO** **If no, please answer one of the following:**

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?
[ ] **YES** [ ] **NO** **If no, give name of country**

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?
[ ] **YES** [ ] **NO** **If no, give name of country**

11. Additional explanation on ownership *(Trace ownership from original breeder to current owner. Use the reverse for extra space if needed)*:

The Idaho Agricultural Experiment Station owns Jerome wheat. It was developed and tested under the direction of Professor Edward Souza, a member of the University of Idaho faculty. Under guidelines of the faculty-staff handbook, intellectual property developed by faculty of the University of Idaho is the property of the University of Idaho. The IAES manages plant varieties on behalf of the College of Agricultural and Life Sciences.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.